

Title (en)

MICRO SCALE FLOW THROUGH SORBENT PLATE COLLECTION DEVICE

Title (de)

DURCHFLUSS-SORBENSPLATTE-SAMMELVORRICHTUNG IM MIKROMASSSTAB

Title (fr)

DISPOSITIF DE COLLECTE MUNI D'UNE PLAQUE ABSORBANTE DE PETITE ECHELLE A CIRCULATION DIRECTE

Publication

EP 1634053 A4 20100224 (EN)

Application

EP 04809440 A 20040610

Priority

- US 2004018680 W 20040610
- US 47703203 P 20030610

Abstract (en)

[origin: WO2005001426A2] In the invention, a collection device includes a first micro scale plate having a sorbent surface and a through hole. The through hole provides for the passage of an analyte fluid flow through the plate, and it has a volume and geometry to provide contact between the fluid and the sorbent surface in an amount effective to absorb a sufficient amount of analyte for subsequent detection of the analyte. The sorbent surface can be provided by a sorbent coating such as an active sensing film, e.g. a conducting or optically active material, examples of which include conducting polymers, polymer/carbon composites, carbon nanotubes, and dye-containing materials. The analyte collection device preferably includes a heating source, e.g. a heating element formed from a resistive trace, or a plurality of resistive traces, on or within the first microscale plate, for effecting a thermal release of collected analyte from the plate.

IPC 8 full level

G01N 30/00 (2006.01); **B01L 3/00** (2006.01); **G01N 1/02** (2006.01); **G01N 1/22** (2006.01); **G01N 1/40** (2006.01); **G01N 30/08** (2006.01); **G01N 33/00** (2006.01); **G01N 30/06** (2006.01); **G01N 30/12** (2006.01)

CPC (source: EP US)

B01L 3/502753 (2013.01 - EP US); **B01L 7/00** (2013.01 - EP US); **B82Y 30/00** (2013.01 - EP US); **G01N 1/02** (2013.01 - EP US); **G01N 1/2214** (2013.01 - EP US); **G01N 1/40** (2013.01 - EP US); **G01N 30/08** (2013.01 - EP US); **G01N 33/0011** (2013.01 - EP US); **B01L 2200/10** (2013.01 - EP US); **B01L 2300/069** (2013.01 - EP US); **B01L 2300/1827** (2013.01 - EP US); **G01N 1/2273** (2013.01 - EP US); **G01N 1/405** (2013.01 - EP US); **G01N 2001/022** (2013.01 - EP US); **G01N 2030/062** (2013.01 - EP US); **G01N 2030/121** (2013.01 - EP US); **Y10T 436/25** (2015.01 - EP US); **Y10T 436/255** (2015.01 - EP US)

Citation (search report)

- [XAY] US 5720798 A 19980224 - NICKERSON MARK A [US], et al
- [Y] US 5690763 A 19971125 - ASHMEAD JAMES WILLIAM [US], et al
- [Y] US 4935040 A 19900619 - GOEDERT MICHEL G [US]
- See references of WO 2005029030A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2005001426 A2 20050106; **WO 2005001426 A3 20050224**; EP 1634053 A2 20060315; EP 1634053 A4 20100224; EP 1639363 A2 20060329; US 2005095722 A1 20050505; US 2005226778 A1 20051013; US 2010034703 A1 20100211; US 2010120167 A1 20100513; US 8409510 B2 20130402; WO 2005029030 A2 20050331; WO 2005029030 A3 20060216

DOCDB simple family (application)

US 2004019344 W 20040610; EP 04776694 A 20040610; EP 04809440 A 20040610; US 2004018680 W 20040610; US 54245306 A 20061002; US 57280709 A 20091002; US 86568504 A 20040610; US 86844504 A 20040610